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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,630	09/08/2003	Richard S. Belliveau		9461

7590 06/17/2005
Mr. Walter J. Tencza Jr.
Suite 3
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EXAMINER

VU, DAVID HUNG

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/657,630	Applicant(s) BELLIVEAU, RICHARD S.	
	Examiner David Vu	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
 4a) Of the above claim(s) 1-18 and 39-62 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 19-38 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/8/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 19-38 in the reply filed on 03/14/2005 is acknowledged.
2. Claims 1-18 and 39-62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 03/14/2005.

Specification

3. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 17 and 24 are objected to because of the following informalities:

Claim 17, line 6, should a comma be added after "bas housing"?

Claim 24, a period must be added at the end of the claim.
5. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 19-20, 32-34,36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa, U.S. Pat No 6,710,762 .

Hasegawa discloses the claimed invention including lamp 2; processing system 8, video projector including liquid crystal light valve 4, air filter 14, fans 12,10; wherein a condition of the air filter system is sensed by the processing system and the condition of the air filter system is communicated to a user by the processing system, see figures 1,3, column 3, lines 34-44, 57-65. The yoke, communications port, and a base are inherent in the Hasegawa reference. Hasegawa does not explicitly disclose base housing and lamp housing. However, housing for the base and lamp are very well known in the art. Thus, one of ordinary skill in the art would have known how to have provided housing for the base as well as for the lamp; thus, protection for the same would have been realized.

Regarding claim 32, mat glass media filter is a very known type of filter. Thus one of ordinary skill in art would have found it obvious to substitute the mat glass media filter for the heap filter; thus, particles, dust and the like would have been removed.

Regarding claim 33, column 4 discloses the secondary filter is HEPA type.

Regarding claim 34, a central controller in an image projection system is very well known as discussed in applicant's background of the invention. It would have been obvious to one of ordinary skill in the art to have sent the communication to the user/technician over the communication system to the central controller; thus, condition

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of the filter would have been notified. Column 7, lines 33-34 and column 13, lines 65-67 of the Hasegawa reference also suggests such central controller.

Regarding claim 36, column 3, lines 57-65, column 12, lines 41+, column 13, lines 1-4, lines 60-67, column 14, lines 25-29, disclose the communication to the user/technician is accomplished by display device 60.

Regarding claim 37, column 12, lines 41-53 does suggest some kind of alarm or alerting element. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed an alerting device such as a pilot lamp for the purpose of signaling condition of the air filter; thus, appropriate action could have been taken for the air filter.

Regarding claim 38, detectors 30,32, MPU 52 and temperature control 54 act as transducers for communicating the filter condition.

8. Claims 21-31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa in view of Shinagawa et al (hereinafter Shinagawa), U.S. Pat No 4,323,374.

Hasegawa as discussed from the above essentially discloses the claimed invention but fails to explicitly disclose the air filter system comprised of a prefilter and secondary filter. Shinagawa discloses an air filter assembly with a prefilter and secondary filter 1-2 (figures 1-5). An obvious modification would have provided the Hasegawa reference with the air filter assembly having a prefilter and secondary filter as taught by Shinagawa so as to achieve high efficiency in removing any kind of particles in the air without causing clogging.

Regarding claims 22 and 24, it would have been obvious to have selected a filter for filtering particles larger than one or 10 microns since one of ordinary skill in the art through routine experiment would have known how to have chosen different type of filters in order to remove different type of particles. Note that column 3, lines 55+ of the Shinagawa reference discloses filtering particles larger than 0.3 micron.

Regarding claim 23, selection the prefilter in dark color would have been considered obvious in light of the availability of filter in different colors. Thus, one of ordinary skill in the art would have known how to have chosen a dark color filter so as to match the color of a dark projector.

Regarding claim 25, column 4 of the Shinagawa discloses the secondary filter is HEPA type.

Regarding claim 26, the Shinagawa reference discloses the secondary filter as a hepa filter. Accordingly, one of ordinary skill in the art would have found it obvious to substitute the mat glass media filter, which is an art-recognized equivalent at the time the invention was made, for the heap filter; thus, particles, dust and the like would have been removed.

Regarding claims 27-28, figure 1e of the Shinagawa reference shows the filters are detachable, figure 1g shows the filters are fixed together.

Regarding claim 29, the prefilter is washable.

Regarding claim 30, open cell foam filter is a very known type of filter. Thus one of ordinary skill in art would have found it obvious to have used such open cell foam filter; thus, particles, dust and the like would have been removed.

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Regarding claim 31, column 4 of the Shinagawa reference discloses secondary filter made of glass fibers.

Regarding claim 35, column 3, lines 57-65, column 12, lines 41+, column 13, lines 1-4, lines 60-67, column 14, lines 25-29 of the Hasegawa reference, disclose the communication to the user/technician is accomplished by projecting an image from the projection device.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent by Carter is cited as showing air filter unit made of mat glass media. The patent by Stemmer et al is cited as showing air filter unit made of open cell foam.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1831. The examiner can normally be reached on M-F 8am-430pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Vu
Primary Examiner
Art Unit 2828

dv